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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,650	03/05/2002	Young-Sik Kim	2080-3-76	8512

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EXAMINER
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GIESY, ADAM

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/092,650

**Applicant(s)**

KIM, YOUNG-SIK

**Examiner**

Adam R. Giesy

**Art Unit**

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

element 19 from drawing 1;  
element L from drawings 4A-7;  
element A from drawing 4B; and  
element 36 from drawing 8.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

element H as disclosed in the specification (page 8, line 23).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

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sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities:

The sides of the lens are referenced in the drawings as s1-s3, however they are shown as S1-S3 numerous times in the specification in pages 7, 8, and 10.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueyanagi (US Pat. No. 6,700,856 B2).

Regarding claim 1, Ueyanagi discloses a lens for an optical recording and reproducing system (Figure 9A, element 6) comprising: a plane of incidence on which a light generated from

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a light source is made incident (6a); a first reflection side for reflecting a light passing through a plane of incidence (7); and a second reflection side for reflecting again the light that has been reflected on the first reflection side (6e), the second reflection side being formed to be an ellipsoid side (see column 14, line 28), and the first reflection side and the second reflection side being coated with a reflection material (see column 14, lines 29 and 34).

Regarding claim 2, Ueyanagi discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above, and further that one of two focal points of ellipsoidal side is positioned on the first reflection side (see figure 9A – the light is reflected from side 6e and focused on element 8 which is considered to be on the first reflective side).

Regarding claim 3, Ueyanagi discloses all of the limitations of claim 2 as discussed in the claim 2 rejection above, and further that a step is formed at the focal point portion of the first reflection side (Figure 9A, element 8).

Regarding claim 4, Ueyanagi discloses all of the limitations of claim 3 as discussed in the claim 3 rejection above, and further that the step has a size of 0.1 ~ 100 nm (column 14, lines 65 and 66).

Regarding claim 5, Ueyanagi discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above, and further that a point symmetrical to another focal point of the ellipsoidal side with respect to the first reflection side is positioned at the plane of incidence (Figure 9A – the left most incident light ray that is depicted creates a focal point from the ellipsoid side that is symmetrical with the focal point from the right-most incident light ray hitting the ellipsoidal side).

Regarding claim 6, Ueyanagi discloses all of the limitations of claim 5 as discussed in the claim 5 rejection above, and further that the plane of incidence is formed convex (Figure 6, element 6A).

Regarding claim 7, Ueyanagi discloses all of the limitations of claim 5 as discussed in the claim 5 rejection above, and further that the plane of incidence is formed concave (Figure 9A, element 6a).

Regarding claim 8, Ueyanagi discloses all of the limitations of claim 5 as discussed in the claim 5 rejection above, and further that a hologram is formed at the plane of incidence (see column 13, line 66 thru column 14, line 13).

Regarding claim 9, Ueyanagi discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above, and further that one of the two focal points of the ellipsoidal side is positioned lower than the first reflection side (see Figure 7A – the reflected light is depicted as focusing below element 8. This is in contrast to Figure 10A where the reflected light rays are focused right on element 8. Since element 8 is considered to be part of the first reflective side, the light rays in Figure 7A are depicted as having a focal point below the first reflective side).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Sato (US Pat. No. 6,392,978 B1) discloses an ellipsoid lens for redirecting/refocusing incident light in an optical recording medium.
- b. Lee et al. (US Pat. No. 6,801,492 B2) discloses a mirror type lens for an optical recording device.

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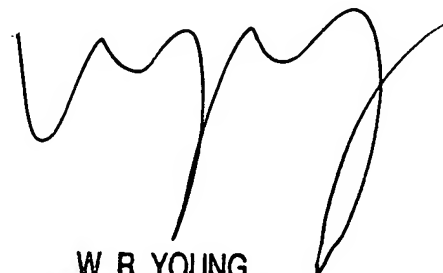
c. Lee et al. (US Doc. No. 2002/0136146) discloses a reflecting lens that refocuses incident light in optical devices.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARG 4/19/2005



W. R. YOUNG  
PRIMARY EXAMINER